

**SECRET**NPIC/TSG/RED-165/70  
6 July 1970

MEMORANDUM FOR: Chief, Technical Services Group, NPIC

ATTENTION : Chief, PPS/TSG

Declass Review by  
NIMA/DODSUBJECT : RED Monthly Report on Significant Events  
(June 1970)A. Significant Items of Interest for June 1970:1. ATR - Target Indexing Device - [REDACTED] 25X1A

All major subsystems have been fabricated and delivered and all electronic subsystems have been checked out. The optical system has been tested and is meeting specifications. The built-in diagnostic system for troubleshooting is now operational and is actually being used by the contractor in final assembly of the device. The program is on schedule.

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3. Improved Rear-Projection Screens - [REDACTED] 25X1A

The small sample of a [REDACTED] experimental, lenticular screen was examined and tested by RED and ESD personnel. Preliminary results indicated that the transmittance of the lenticular material is approximately 100% more than the standard, wide-angle [REDACTED] LS-60 screen and 30% more than the [REDACTED] LS-75 narrow-angle, highly-directional screen. The lenticular material, however, has some undesirable color. A follow-on program is being prepared to: (1) eliminate the color, and (2) fabricate a large lenticular screen which would be usable in the Scan & Search P.I. Station.

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4. Automated Stereo Scanner [REDACTED] 25X1A

Technical coordination sessions between [REDACTED] have been completed. [REDACTED] is now performing an inventory of all the ASS equipment and preparing it for shipment to [REDACTED] where it will be reassembled prior to performing the engineering audit. The concurrent [REDACTED] study on "The Utility of Stereo Scanning" should begin shortly.

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5. Image Comparison Microstereoscope - [REDACTED] 25X1A

25X1A The prototype is approximately 90% complete, but the project is currently in a stop-work status. Completion will require approximately [REDACTED] in additional funds and 5 months' time to complete. An overrun request is currently being prepared.

6. Green Oil Coolant - [REDACTED] 25X1A

25X1A Positive identification of the contaminate in the [REDACTED] light table coolant (green oil) has not been made; further analysis is continuing. However, sufficient information has been obtained to indicate that most of the contaminants come from the silicones used in the table. Repeated analyses of the oil from the test table indicates that there is a buildup of contaminants with time and that this correlates with a definite drop in light intensity. An interim recommendation would be to drain every table after a few hundred hours of operation, then flush and refill. Periodic changing of the oil will probably remove all contaminants permanently.

7. Photoscience Support - [REDACTED] 25X1A

25X1A Project activity was initiated under the Photoscience Support Program with [REDACTED]. Five work orders were authorized for these project objectives: (1) defining the chemistry of non-silver halide photographic processes; (2) application of a scanning electron microscope to photointerpretation; (3) coarse-cut analysis of contaminated green oil (from light tables); (4) investigation of a novel photoprocess; and (5) demonstration of a contrast manipulation process.

8. [REDACTED] GRANT 25X1A

25X1A The technical portion of the [REDACTED] Grant was completed with a day-long presentation of research papers by grant-supported students and with the receipt of their final research reports. [REDACTED] overall performance was rated "Very Good."

9. Free Radical Photoprocess - [REDACTED] 25X1A

25X1A [REDACTED] has reversed a previous corporate policy against accepting government-sponsored R&D contracts and may now consent to participate in an exploratory program for developing a free radical duplicating film. This capable organization could serve as a second source to [REDACTED], and provide additional technical perspective on free radical film technology. 25X1A

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# 10. Contract Proposals

- a. FY-70 contracts were approved and negotiated with [REDACTED] Color Training) and [REDACTED] Ground Order of Battle Resolution Study).
- b. Proposals for FY-1971 research were received from, and contract approval requests were submitted for, [REDACTED] Consultation in Visual Perception) and for [REDACTED] Imagery Experimentation Support). A letter proposal was received from [REDACTED] (Photointerpretation Research Support) and is presently being evaluated.

# 11. U.V. Radiation Briefing

[REDACTED] Chief, Clinical Division, OMS, and [REDACTED] Agency consultant ophthalmologist/physicist, briefed TSSG administrative and engineering personnel on the physiological effects of ultraviolet radiation on the visual system. It was concluded that the quantities and the characteristics of UV radiation detected in the Richards high intensity light table were not cause for concern.

# 12. PI Training Package

Evaluation and validation of the PI training package on Medium Tanks--developed under the FY-1970 [REDACTED] Imagery Interpretation Research Program--revealed a substantial improvement in target recognition and identification after training.

# 13. The following R&D contracts have been negotiated:

- a. 10x10 Stereocomparator Contract;
- b. [REDACTED] Eyepiece for Zoom 240 Contract;
- c. [REDACTED] 1540 Light Tables Production Contract;
- d. 6x6 Modification Contract; and
- e. Dry Silver Enlarger/Viewer/Printer Contract.

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14. Equipment Delivered: The Remote Console for [REDACTED] On-Line System has been delivered.

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15. Personnel - Summer Interns

a. 1 June 1970 - [REDACTED]  
(EE & Physics) joined ITL/ATB for work on the OIM project.

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b. 8 June 1970 - [REDACTED]  
University, began his second summer with ITL/ATB. He has been assigned a microdensitometer calibration project.

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c. 15 June 1970 - [REDACTED]  
joined ITL/ATB. [REDACTED] will assist [REDACTED] on OIM.

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d. 17 June 1970 - [REDACTED] reported for duty in the OC/RED and has been assigned technical and management problems.

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e. 22 June 1970 - [REDACTED] reported for duty with ATB.

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B. Anticipated Items of Interest for July 1970.

None.

C. See Attachment (TCS-8416-70) for the report of RED/RSB significant events for June 1970.

[REDACTED]  
Deputy Chief

Research & Engineering Division,  
TSG/NPIC

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Attachment:  
TCS-8416-70

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